

Comparison of ITRF2000 with a GPS defined reference frame

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It is now possible to define a global terrestrial reference frame using the GPS satellite constellation. The GPS reference frame has an origin defined as the center of mass about which the satellites orbit. The scale or unit of measurement is the meter which is defined by light travel times from the satellites to receivers on the ground. Orientation of the frame is defined for alignment with historical polar motion estimates and no net drift with respect to the NNR-NUVEL1A plate motion model. Offsets and drifts between the ITRF2000 and GPS reference frames will be quantified and discussed.